UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,765	04/16/2004	Seela Raj D. Rajaiah	70040217-1	8728

7590 06/27/2006

AGILENT TECHNOLOGIES, INC.
Legal Department, DL 429
Intellectual Property Administration
P.O. Box 7599
Loveland, CO 80537-0599

EXAMINER
WRIGHT, KAINOA

ART UNIT	PAPER NUMBER
2861	

DATE MAILED: 06/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/825,765	RAJAIAH ET AL.	
	Examiner	Art Unit	
	Kainoa BK Wright	2861	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 April 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 April 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4/16/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1,3,6,7,9,12 and 16 are rejected under 35 U.S.C. 102(e) as being anticipated by Arquilevich et al. (US 6,655,778).

Regarding claim 1, Arquilevich et al. discloses a color calibration system comprising a controller 45 for controlling printing functions; light emitting diodes 120-126; a color sensor, as a photodiode 108, the photodiode being used to generate signals (column 5, lines 50-60), the signals used in color calibration by the controller (column 6, lines 35-45), the signals further being initiated by the detection of a target (column 8, lines 42-50).

Regarding claim 3, Arquilevich et al. discloses an analog-to-digital converter in conjunction with the controller (column 6, lines 1-5), the A/D converter usable to convert the signal from analog to digital, the digital signal to be used by the controller.

Regarding claims 6 and 7, the color calibration system of Arquilevich et al. is intended for use within a printing device (see abstract), therefore the arguments

presented against claim 1 hold true for claim 6 and for claim 7 with respect to the dependencies of claim 6 and claim 7.

Regarding claim 9, the color calibration system of Arquilevich et al. is intended for use within a printing device (see abstract), therefore the arguments presented against claim 3 hold true for claim 9 with respect to the dependencies of claim 9.

Regarding claim 16, Arquilevich et al. teaches a printing means (Figure 6) for printing; an emitting means, as light emitting diodes 120-126, for emitting light; a detecting means, as a photodiode 108, for detecting color signals reflected off a media (column 5, lines 50-60); and an adjusting means, as a controller, for adjusting color calibration, (column 6, lines 35-45 and column 8, lines 10-15).

Regarding claim 12, the operation of the devices of claim 16 produce the method corresponding to claim 12, and as such, the arguments presented against claim 16 hold true for claim 12.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 2 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arquilevich et al. (US 6,655,778) in view of Sarmast et al. (US 6,582,052).

Regarding claim 2, Arquilevich et al. teaches the limitations of claim 1 including a color calibration system with a controller for controlling print functions. Arquilevich et al. further teaches the controller adjusting the ink volume (column 11, lines 20-30) as a calibration response.

Arquilevich et al. fails to teach the controller adjusting a firing timing and also fails to teach the controller selecting nozzles for use.

Sarmast et al. teaches the adjustment of nozzle firing timing and the selection of nozzles in response to a calibration (column 5, lines 38-43 and column 6, lines 47-67).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the color calibration system of Arquilevich et al. to include the adjustments to nozzle selection and firing timing as a calibration response, as taught by Sarmast et al., in order to provide an additional method of adjusting print functions in response to a calibration system, multiple methods of adjusting print functions being well known.

Regarding claim 8, the color calibration system of Arquilevich et al. is intended for use within a printing device (see abstract), therefore the arguments presented against claim 2 hold true for claim 8 with respect to the dependencies of claim 8.

4. Claims 4,5,10,11,13-15 and 17-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arquilevich et al. (US 6,655,778) in view of Tandon et al. (2003/0086090).

Regarding claim 4, Arquilevich et al. teaches the limitations of claim 1 including a color calibration system with photodiodes detecting light emitted from LED's and reflected off of target marks.

Arquilevich et al. fails to teach the photodiodes detecting the specific colors of: red, blue and green.

Tandon et al. teaches the photodiodes detecting the colors: red, blue and green [0074].

Regarding claim 5, Arquilevich et al. teaches the limitations of claim 1 including a color calibration system with photodiodes detecting reflected light emitted from an LED.

Arquilevich et al. fails to teach an LED being a white light emitting diode.

Tandon et al. teaches the LED being a white light emitting diode for use in a color sensor [0072].

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the white LED of Tandon et al. as a light source within the color sensor of the calibration system of Arquilevich et al. in order to provide the broadest possible wavelength for detecting colors as illustrated in Figure 9 of Tandon et al.

Regarding claim 10, the color calibration system of Arquilevich et al. is intended for use within a printing device (see abstract), therefore the arguments presented against claim 4 hold true for claim 10 with respect to the dependencies of claim 10.

Regarding claim 11, the color calibration system of Arquilevich et al. is intended for use within a printing device (see abstract), therefore the arguments presented against claim 6 hold true for claim 11 with respect to the dependencies of claim 11.

Regarding claim 17, Arquilevich et al. teaches the limitations of claim 16 including a means for detecting a plurality of colors of light.

Arquilevich et al. fails to teach a separate color signal for each detected color.

Tandon et al. teaches generating a separate color signal for each detected color [0074].

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the separate color signal generation means of Tandon et al. in the color sensor of Arquilevich et al.'s color calibrating system in order to analyze the detected colors separately, as shown in Tandon et al.'s Figures 9-12.

Regarding claim 18, Arquilevich et al. teaches the limitations of claim 16 including a means for detecting a plurality of colors of light. Arquilevich et al. further includes a means for converting a signal from analog to digital (column 6, lines 1-5).

Arquilevich et al. fails to teach a separate color signal for each detected color.

Tandon et al. teaches generating a separate color signal for each detected color [0074].

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the separate color signal generation means of Tandon et al. in the color sensor of Arquilevich et al.'s color calibrating system in order to analyze the detected colors separately, as shown in Tandon et al.'s Figures 9-12. It would have been further obvious to use the converting means to produce a digital signal for use in the adjusting means (column 6, lines 1-5).

Regarding claim 19, the color calibration system of Arquilevich et al. is intended for use within a printing device (see abstract), therefore the arguments presented against claim 4 hold true for claim 19 with respect to the dependencies of claim 19.

Regarding claim 20, the color calibration system of Arquilevich et al. is intended for use within a printing device (see abstract), therefore the arguments presented against claim 5 hold true for claim 20 with respect to the dependencies of claim 20.

Regarding claim 13, the operation of the devices of claim 17 produce the method corresponding to claim 13, and as such, the arguments presented against claim 17 hold true for claim 13.

Regarding claim 14, the operation of the devices of claim 18 produce the method corresponding to claim 14, and as such, the arguments presented against claim 18 hold true for claim 14.

Regarding claim 15, the operation of the devices of claim 19 produce the method corresponding to claim 15, and as such, the arguments presented against claim 19 hold true for claim 15.

Conclusion

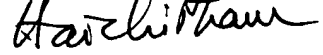
5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Subirada et al. (US 7055925); Clark et al. (US 6428134); Sievert et al. (2004/0085378); Kofman (WO2004/018217).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kainoa BK Wright whose telephone number is (571) 272-5102. The examiner can normally be reached on M-F 8:00am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vip Patel can be reached on (571) 272-2458. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

KAI
6/13/2006



HAI PHAM
PRIMARY EXAMINER